

Management and Performance: FY 2007 PAR Annual Performance Report

Cross-Agency Support Programs

Cross Agency Support Programs: Education

	Green	Yellow	Red	White
3 Outcomes	3 (100%)	0	0	0
10 APGs	10 (100%)	0	0	0

Responsible Mission Directorate

Contributing Theme

Theme Description

The Education Theme partners with academia, professional associations, industry, and other agencies to provide teachers and faculty with experiences that capitalize on the excitement of NASA’s missions. It also offers involvement in NASA’s research efforts to encourage students to pursue higher education in science, technology, engineering, and mathematics, ensuring a future supply of highly trained people.

PART Assessment Rating						
Theme	Last Year Assessed	Overall Rating	Program Purpose and Design	Strategic Planning	Program Management	Program Results/ Accountability
Education	2007	Results Not Demonstrated	100%	88%	60%	33%

NASA's Office of Education works through strategic partnerships and linkages between formal and informal education providers to strengthen the Nation's future workforce. Using the excitement of NASA's missions to inspire and capture the imagination of students, NASA programs and learning materials encourage students to pursue studies and careers in science, technology, engineering, and mathematics (STEM). NASA offers a progression of educational opportunities for students, teachers, and faculty that promote STEM literacy, help to attract and retain students in STEM disciplines, and improve awareness of NASA's Mission. Education's collaboration with the NASA Mission Directorates and Centers, other federal agencies engaged in educational activities, and various public and private partners helps to leverage the effectiveness and reach of its programs.

Benefits

NASA's landmark achievements in air and space, made possible by scientific excellence and technical innovation, have deepened humankind's understanding of the universe while yielding down-to-Earth advances in air travel, health care, electronics, computing, and more. These achievements ultimately share a single source—education. NASA's Office of Education uses NASA's unique missions and vast scientific and technical experience to inspire and motivate America's future leaders.

To achieve NASA's Strategic Goals, the Agency must ensure a pipeline of highly skilled, diverse individuals. In the near-term, NASA will meet workforce needs by additional training for current employees and recruiting employees with skills and capabilities in recent research and technology fields into the Agency. To meet long-term workforce needs, NASA's Education programs help inspire students at all levels to pursue STEM-related careers, providing professional development opportunities to STEM teachers, and developing interesting STEM content for the classroom, the Web, and informal learning environments like museums and community-based organizations.

Risks to Achieving Education's Outcomes

Budget stability is the greatest challenge facing the Education Program. To implement its plans with strategic partners, NASA must ensure that it can deliver on its commitments. Continuing and developing new partnerships with formal and informal education providers, as well as attracting and retaining STEM students in success-oriented programs requires consistent and sustained support.

FY 2008 Performance Forecast

- NASA will re-align and restructure projects within Education to focus and accelerate products and services to meet NASA's needs.

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Outcome ED-1: Contribute to the development of the STEM workforce in disciplines needed to achieve NASA's strategic goals through a portfolio of programs.

FY04	FY05	FY06	FY 2007
None	13.2 Green	ED-1 Green	Green
None	13.3 Green		

The Office of Education provides opportunities to help students and educators gain hands-on experience in a range of STEM-related areas through NASA internships, fellowships, and research experiences. The goal is to give students the motivation, inspiration, and experience they need to serve the Nation's current and future workforce needs. In FY 2007, Education significantly exceeded several of its award targets: more than 1,000 competitive study opportunities to higher education students; more than 800 study opportunities, including 538 Space Grant consortia, to underserved students, teachers, and faculties; and 139 grants to 50 underrepresented and underserved institutions.

Education initiated a study of previous student participants in NASA education opportunities and its effects on the NASA workforce. Education continues to work with NASA's Office of Human Capital Management's data system to collect, analyze, and report on student participants who have entered the NASA workforce. Additionally, NASA is redesigning its data system to include a student participant tracking system and process. There is no federal data collection system that supports this process.

FY 2007 Annual Performance Goals	FY04	FY05	FY06	FY 2007
Award 1,000 competitive internships, fellowships, and research opportunities for higher education students and faculty in STEM disciplines.	None	None	6ED3 Green	7ED1 Green
Award 270 competitive scholarships, internships, fellowships, and research opportunities for underrepresented and underserved students, teachers and faculty in STEM disciplines.	None	None	6ED6 Green	7ED2 Green
Provide 95 grants to enhance the capability of 50 underrepresented and underserved colleges and universities to compete for and conduct basic or applied NASA-related research.	None	None	6ED7 Yellow	7ED3 Green
Collect, analyze, and report longitudinal data on student participants to determine the degree to which participants enter the NASA workforce or other NASA-related career fields.	None	None	6ED5 Green	7ED5 Green

Outcome ED-2: Attract and retain students in STEM disciplines through a progression of educational opportunities for students, teachers, and faculty.

FY04	FY05	FY06	FY 2007
None	None	None	Green

A challenging budget year required the Office of Education to set programmatic priorities which resulted in the funding of projects with the highest contribution potential toward its goals. The Office of Education successfully conducted 10 Educator Astronaut workshops, involving more than 130 educators, and selected and supported 25 additional schools to participate in the NASA Explorer Schools program. Although the Explorer School target to select 50 new schools was not feasible, the objective to maintain a steady-state total of 100 participating schools was met.

Through ISS EarthKAM students were able to perform simple (partial) experiments by taking photographs of Earth using the Web to direct a digital camera during select spaceflights and from the ISS. ISS EarthKAM is a NASA-sponsored research program that provides stunning, high-quality photographs of the planet. These simple student experiments (more than 100 in FY 2007) involved approximately 3,600 middle school students and 54 undergraduate students in authentic, first-hand NASA mission activities.

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FY 2007 Annual Performance Goals	FY04	FY05	FY06	FY 2007
Conduct 10 Educator Astronaut workshops, involving approximately 200 educators.	None	None	None	7ED6 Green
Select and support 50 additional schools to participate in the NASA Explorer Schools program, maintaining the total number at 100.	None	5ED14 Green	None	7ED7 Green
Select 100 student experiments, involving 1,000 students, to participate in the Flight Projects program.	None	None	None	7ED8 Green

Outcome ED-3: Build strategic partnerships and linkages between STEM formal and informal education providers that promote STEM literacy and awareness of NASA's mission.

FY04	FY05	FY06	FY 2007
None	13.5 Green	None	Green

The Office of Education collaborated with NASA's Office of Public Affairs, Office of Communications Planning, Mission Directorates and Field centers to develop partnership strategies and activities to enhance the capabilities of the informal education community. Activities and programs were structured to provide access to NASA staff, research, technology, information and facilities as the means for inspiring the next generation of explorers. 350 museums and science centers were actively engaged in major NASA events in FY 2007. The NASA Space Grant consortium supported 214,106 individuals in informal education projects and activities this year. Additionally, 1,750 informal education providers in organizations as diverse as community and youth groups, astronomy clubs, libraries, and the Boy and Girl Scouts used NASA resources in their programming.

The Office of Education also positioned its E-Education Program to serve as an important linchpin across its portfolio. E-Education was able to advance and support education product reviews, assist approved products in meeting 508-compliance prior to electronic posting in the NASA Portal, and assist products in meeting standards of the Agency's Communication Materials Review. With a limited budget and the momentum gained from E-Education, three of the four E-Education projects contributed toward digitizing and providing meta-tags to over 10 percent of NASA's approved learning materials using technology-enabled learning systems. Each project had a unique niche in this effort to deliver materials to the end user.

FY 2007 Annual Performance Goal	FY04	FY05	FY06	FY 2007
Digitize and meta-tag 10 percent of NASA's approved learning materials to be delivered using technology-enabled learning systems.	None	None	None	7ED9 Green

Efficiency Measures

FY 2007 Annual Performance Goals	FY04	FY05	FY06	FY 2007
Collect, analyze, and report that 100% of grantees annually report on their accomplishments.	None	None	6ED11 Green	7ED11 Green
Peer review and competitively award at least 85%, by budget, of research projects.	4ED24 Green	5ED19 Green	6ED12 Red	7ED12 Green